

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P308599

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-RDP-CP250-W2A-U-6500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P308599
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L82765-RDP-CP250-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (168) 3000K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2584.0 lumens
Efficiency: N/A
Efficacy: 66.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

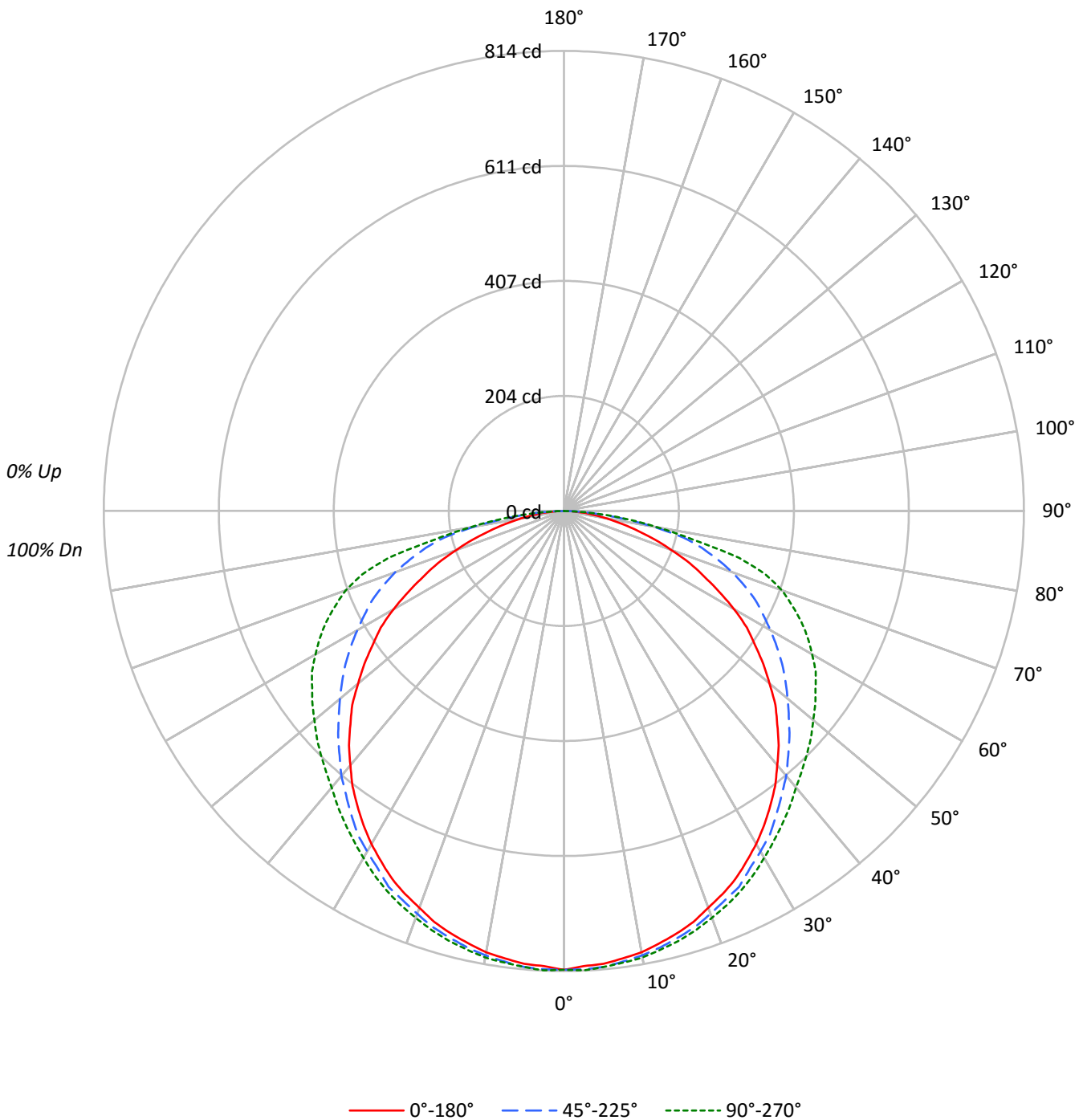
Input Watts (W): 38.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2184	2184	2184
5°	2172	2187	2187
10°	2166	2182	2192
15°	2155	2177	2193
20°	2139	2172	2194
25°	2133	2178	2201
30°	2115	2162	2203
35°	2092	2154	2217
40°	2063	2150	2244
45°	2033	2149	2315
50°	1989	2164	2411
55°	1935	2212	2551
60°	1872	2271	2731
65°	1743	2385	2953
70°	1600	2497	3231
75°	1404	2628	3341
80°	1207	2504	2622
85°	1056	1819	1995



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.8	3.0
10°-20°	220.5	8.5
20°-30°	336.3	13.0
30°-40°	410.7	15.9
40°-50°	439.1	17.0
50°-60°	423.8	16.4
60°-70°	364.8	14.1
70°-80°	246.9	9.6
80°-90°	65.1	2.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	633.6	24.5
0°-40°	1044.2	40.4
0°-60°	1907.2	73.8
0°-90°	2584.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2584.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	812	812	812	812	812	
5°	804	806	810	810	810	76
15°	774	776	781	785	787	218
25°	718	722	734	738	741	331
35°	637	642	656	669	675	398
45°	534	544	565	593	608	412
55°	412	426	471	519	544	370
65°	274	300	374	433	464	272
75°	135	179	253	304	321	145
85°	34	48	59	61	65	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	811.7	811.7	811.7	811.7	811.7
2.5°	806.0	807.9	811.7	811.7	813.6
5°	804.1	806.0	809.8	809.8	809.8
7.5°	798.4	800.3	804.1	806.0	806.0
10°	792.7	794.6	798.4	800.3	802.2
12.5°	783.2	785.1	790.8	794.6	794.6
15°	773.7	775.6	781.3	785.1	787.0
17.5°	762.3	766.1	771.8	775.6	777.5
20°	747.0	750.9	758.5	764.2	766.1
22.5°	733.7	737.5	745.1	750.9	754.7
25°	718.5	722.3	733.7	737.5	741.3
27.5°	699.5	703.3	712.8	720.4	726.1
30°	680.5	684.3	695.7	705.2	709.0
32.5°	659.6	665.3	678.6	686.2	691.9
35°	636.8	642.5	655.8	669.1	674.8
37.5°	614.0	619.7	633.0	650.1	657.7
40°	587.4	595.0	612.1	634.9	638.7
42.5°	562.7	572.2	587.4	614.0	623.5
45°	534.1	543.7	564.6	593.1	608.3
47.5°	507.5	517.0	539.9	574.1	593.1
50°	475.2	488.5	517.0	557.0	576.0
52.5°	444.8	456.2	494.2	538.0	560.8
55°	412.5	425.8	471.4	518.9	543.7
57.5°	384.0	395.4	446.7	499.9	528.4
60°	347.9	363.1	422.0	479.0	507.5
62.5°	309.8	332.7	397.3	456.2	486.6
65°	273.7	300.3	374.5	433.4	463.8
67.5°	241.4	269.9	346.0	408.7	437.2
70°	203.4	239.5	317.4	378.3	410.6
72.5°	169.2	209.1	285.1	346.0	374.5
75°	135.0	178.7	252.8	304.1	321.3
77.5°	104.5	146.4	216.7	231.9	233.8
80°	77.9	116.0	161.6	163.5	169.2
82.5°	53.2	81.7	104.5	114.1	116.0
85°	34.2	47.5	58.9	60.8	64.6
87.5°	15.2	17.1	20.9	19.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)